

***COMMENTS OF ENVIRONMENTAL DEFENSE ON
THE EFFECTS OF SURTASS-LFA SONAR ON MARINE ECOSYSTEMS***

April 26, 2001

Rodney M. Fujita, Ph.D – Senior Scientist, Marine Ecologist

The decision to test and deploy high-powered Low Frequency Active Sonar (LFAS) should be based on facts and an understanding of the scientific uncertainties involved. The Navy claims that these effects will be negligible, but the existing evidence is to the contrary.

Several whale beachings have been linked to the use of active sonar. Some scientists have concluded that several whales died from massive injuries in brain and ear tissues caused by loud sonar pulses. More subtle but potentially very significant effects have also been documented. Gray whales swerved far off their customary route while the LFA Scientific Research Program was underway near San Francisco Bay. LFA sounds also caused male humpback whales to lengthen their songs by an average of 29%. It is not known how this might impact whale reproduction or other aspects of their lives, but songs are thought to be important for attracting mates.

The Navy has concluded that preventing exposure to LFA transmissions below 180 dB will minimize risk to marine mammals. However, there is evidence that whales can be seriously injured or killed at far lower sound levels. These observations strongly suggest that active sonar can harm whales. Moreover, the medium- to long-term impacts of LFA are unknown. Impacts on the order of weeks to even decades are important to whales, because of their long life spans. The results of deafening or otherwise harming a whale with LFA might not become evident for years. Hence, the Navy's Scientific Research Program to assess the impacts of LFA on whales is not up to the task.

The Navy and NMFS have focused on projecting the potential impacts of LFA on marine mammals that can hear well at low frequencies. However, the effects of LFA may extend to a wide variety of species that can be affected by damaging resonance within their body cavities caused by intense sounds.

There is strong evidence that active sonar harms whales at intensities lower than 180 dB. Not enough medium- to long- term research on LFA impacts has been conducted. And huge uncertainties remain concerning the potential impacts of LFAS on other kinds of marine organisms. Given these facts and uncertainties, NMFS should deny the Navy's request for authorization to take marine mammals while testing the LFA Sonar system.